

C1
C2
division of application Serial No. 06/771,248, filed August 30, 1985, now abandoned.

BACKGROUND OF THE INVENTION--

IN THE CLAIMS:

Please cancel claim 12, without prejudice, and amend the following claim.

11. (Amended) A nucleic acid [nucleotide sequence] of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the [nucleotide sequence] nucleic acid is free of particles of said virus and the [sequence] nucleic acid is encoded by a nucleotide sequence selected from the group consisting of:

(a) the sequence encoding ORF-Q comprising the following nucleotides:

4480	4490	4500	4510	4520	4530
TGC	CAAGAAGAAA	AGCAAAGATC	ATTAGGGATT	ATGGAAAACA	GATGGCAGGT
4540	4550	4560	4570	4580	
GATGATTGTG	TGGCAAAGTAG	ACAGGATGAG	GATTAGAACAA	TGGAAAAGATT	
4590	4600	4610	4620	4630	
TAGTAAAACA	CCATATGTAT	GTTTCAGGGAA	AAGCTAGGGG	ATGGTTTTAT	
4640	4650	4660	4670	4680	
AGACATCACT	ATGAAAGCCC	TCATCCAAGA	ATAAGTTCAAG	AAGTACACAT	
4690	4700	4710	4720	4730	
CCCACTAGGG	GATGCTAGAT	TGGTAATAAC	AACATATTGG	GGTCTGCATA	
4740	4750	4760	4770	4780	
CAGGAGAAAG	AGACTGCCAT	CTGGGTCAAGG	GAGTCTCCAT	AGAATGGAGG	
4790	4800	4810	4820	4830	
AAAAAGAGAT	ATAGCACACA	AGTAGACCCCT	GAACTAGCAG	ACCAACTAAT	
4840	4850	4860	4870	4880	
TCATCTGTAT	TACTTGACT	GTTCAGA	CTCTGCTATA	AGAAAGGCCT	

4890	4900	4910	4920	4930
TATTAAGGACA	TATAGTTAGC	CCTAGGTGTG	AATATCAAGC	AGGACATAAC
4940	4950	4960	4970	4980
AAGGTAGGAT	CTCTACAATA	CTTGGCACTA	GCAGCATTAA	TAACACCAAA
4990	5000	5010	5020	5030
AAAGATAAAAG	CCACCTTTGC	CTAGTGTAC	GAAACTGACA	GAGGATAGAT
5040	5050	5060	5070	5080
GGAACAAAGCC	CCAGAAGACC	AAGGGCCACA	GAGGGAGCCA	CACAATGAAT

GGACAC;

(b) the sequence encoding ORF-R comprising the following nucleotides:

8250	8260	8270	8280	8290	8300
GA	CAGGGCTTGG	AAAGGATTTC	GCTATAAGAT	GGGTGGCAAG	TGGTCAAAAAA
8310	8320	8330	8340	8350	
GTAGTGTGGT	TGGATGGCCT	ACTGTAAGGG	AAAGAATGAG	ACGAGCTGAG	
8360	8370	8380	8390	8400	
CCAGCAGCAG	ATGGGGTGGG	AGCAGCATCT	CGAGACCTGG	AAAAACATGG	
8410	8420	8430	8440	8450	
AGCAATCACA	AGTAGCAATA	CAGCAGCTAC	CAATGCTGCT	TGTGCCTGGC	
8460	8470	8480	8490	8500	
TAGAAGCACA	AGAGGAGGAG	GAGGTGGGTT	TTCCAGTCAC	ACCTCAGGTA	
8510	8520	8530	8540	8550	
CCTTTAAGAC	CAATGACTTA	CAAGGCAGCT	GTAGATCTTA	GCCACTTTT	
8560	8570	8580	8590	8600	
AAAAGAAAAG	GGGGGACTGG	AAGGGCTAAT	TCACTCCCAA	CGAAGACAAG	
8610	8620	8630	8640	8650	
ATATCCTTGA	TCTGTGGATC	TACCACACAC	AAGGCTACTT	CCCTGATTGG	
8660	8670	8680	8690	8700	
CAGAACTACA	CACCAAGGCC	AGGGGTCAGA	TATCCACTGA	CCTTGGATG	
8710	8720	8730	8740	8750	
GTGCTACAAG	CTAGTACCAAG	TTGAGCCAGA	TAAGGTAGAA	GAGGCCAATA	
8760	8770	8780	8790	8800	
AAGGAGAGAA	CACCAAGCTTG	TTACACCCCTG	TGAGCCTGCA	TGGAATGGAT	

8810 8820 8830 8840 8850
 GACCCTGAGA GAGAAGTGTG AGAGTGGAGG TTTGACAGCC GCCTAGCATT

 8860 8870 8890 8900
 TCATCACGTG GCCCGAGAGC TGCATCCGGA GTACTTCAAG AACTGC;

(c) the sequence encoding ORF-1 comprising the
 following nucleotides:

CK
 5030 5040 5050 5060 5070 5080
 AT GGAACAAAGCC CCAGAAAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT

 5090 5100 5110 5120 5130
 GGACACTAGA GCTTTTAGAG GAGCTTAAGA ATGAAGCTGT TAGACATTT

 5140 5150 5160 5170 5180
 CCTAGGATTT GGCTCCATGG CTTAGGGCAA CATATCTATG AAACATTATGG

 5190 5200 5210 5220 5230
 GGATACTTGG GCAGGAGTGG AAGCCATAAT AAGAATTCTG CAACAACTG

 5240 5250 5260 5270 5280
 TGTTCATCCA TTTCAGAATT GGGTGTGAC ATAGCAGAAT AGGCAGTTACT

 5290 5300 5310
 CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCC;

(d) the sequence encoding ORF-2 comprising the
 following nucleotides:

5280 5290 5300 5310 5320
 GCGTTACT CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA

 5330 5340 5350 5360 5370
 CTAGAGCCCT GGAAGCATCC AGGAAGTCAG CCTAAAACTG CTTGTACAC

 5380 5390 5400 5410 5420
 TTGCTATTGT AAAAAGTGTG GCTTTCATTG CCAAGTTGT TTCACAAACAA

 5430 5440 5450 5460 5470
 AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA GCGACGAAGA

 5480 5490 5500 5510
 CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAG;

(e) the sequence encoding ORF-3 comprising the following nucleotides:

5390 5400 5410 5420 5430
AAAGTGTG GCTTCATTG CCAAGTTGT TTCACAAACAA AAGCCTTAGG
5440 5450 5460 5470 5480
CATCTCCTAT GGCAGGAAAGA AGCGGAGACA GCGACGAAGA CCTCCTCAAG
5490 5500 5510 5520 5530
GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAGTAAGT AGTACATGTA
5540 5550 5560 5570 5580
ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT
5590 5600 5610
AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATA;

(f) the sequence encoding ORF-4 comprising the following nucleotides:

5520 5530 5540 5550 5560 5570
GT AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG
5580 5590 5600 5610 5620
CAATAATAAT AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG
5630 5640 5650 5660 5670
AAAATATTAA GACAAAGAAA AATAGACAGG TTAATTGATA GACTAATAGA
5680 5690 5700 5710 5720
AAGAGCAGAA GACAGTGGCA ATGAGAGTGA AGGAGAAATA TCAGCACTTG
5730 5740 5750 5760 5770
TGGAGATGGG GGTGGAAATG GGGCACCATG CTCCTGGGA TATTGATGAT CTG;

and

(g) the sequence encoding ORF-5 comprising the following nucleotides:

7970 7980 7990 8000 8010
CACTT ATCTGGGACG ATCTGCGGAG CCTTGTGCCT CTTCAGCTAC
8020 8030 8040 8050 8060
CACCGCTTGA GAGACTTACT CTTGATTGTA ACGAGGATTG TGGAACCTCT